

5 **Abstract**

 Cooling system and method for expelling heat from a heat source located in the
 interior of an aircraft

10 With a cooling system for expelling heat from a heat source (30) located in the
interior of an aircraft to a heat reducer (32), with a piping system (10) sealed against
the surrounding atmosphere which is thermally coupled to a heat intake section (14)
with the heat source (38) and to a heat output section (22) with the heat reducer
(32), and which preferably has an essentially adiabate transport section (21), it is
15 proposed that the piping system (10) is filled with a heat conveyance medium (12)
which, when taking in heat from the heat source (38) in the heat intake section (14)
undergoes a transition from the liquid phase to the gaseous phase, then flows into
the heat output section (22), and here, when discharging heat to the heat reducer
(32) condenses once again, and flows back into the heat intake section (14).

20 Fig. 4